

# Application Integration Buyers Guide

Software Provider and Product Assessment



EXECUTIVE  
SUMMARY

**\*ISG** Research™



# Application Integration

Data-driven enterprises rely on a complex web of applications to operate efficiently. Individually these applications serve a specific purpose—such as human capital management, supply chain management and enterprise resource planning—but these functions do not operate independently. In order to function, enterprises need to be able to ensure that their chosen applications are interoperable.

ISG Research defines Application Integration as the enablement and management of direct communication between applications, supporting the fulfilment of business processes and workflows that rely on multiple applications operating in concert. While application integration has traditionally relied on point-to-point integration between individual applications, modern application integration is increasingly dependent on application programming interfaces and API management.



**Most application integration and API management vendors have adopted a cloud-based integration Platform-as-a-Service (iPaaS) approach to delivering a combination of application integration, API management and data integration.**

Although standalone application integration and API management tools are available, most application integration and API management vendors have adopted a cloud-based integration Platform-as-a-Service (iPaaS) approach to delivering a combination of application integration, API management and data integration. By adopting managed iPaaS rather than developing and managing their own integrations, enterprises can reduce the complexity and cost of integration initiatives. Cloud-based iPaaS offerings also facilitate the integration of applications regardless of their deployment location, enabling enterprises to integrate applications running in the public cloud, private cloud and on-premises from a single location, avoiding the need to migrate workloads until they are ready to do so.

Application integration relies on several core concepts. The first is connectivity between applications. While this would historically have been performed through complex coding, APIs provide a set of functions and procedures that define the interaction between applications, providing consistency and predictability and lowering the cost and complexity of creating and maintaining integrations between

applications.

Application software vendors provide APIs to facilitate integration between applications. In addition to taking advantage of these APIs an enterprise application integration strategy will rely on API management functionality that enables the enterprise to discover, manage, secure, monitor and govern APIs, along with an environment for the development of APIs and



API gateway functionality to streamline API-based communication between multiple applications.

Communication between applications using APIs is driven by events that trigger actions. As such it is critical that application integration occurs in real-time to ensure that integrations occur at the speed of business events and facilitate responsiveness to evolving business requirements. By 2026, more than three-quarters of enterprises will rely on information architectures enabled by API-led application integration to support operational efficiency and real-time responsiveness.

Other key capabilities delivered by application integration products include functionality to configure connections between applications, business process development, testing and automation, and an environment for developing, testing, deploying and monitoring and managing integration processes.

## Data Intelligence

Market Assertion

By 2026, more than three-quarters of enterprises will rely on information architectures enabled by API-led application integration to support operational efficiency and real-time responsiveness.

**Matt Aslett**

Director of Research, Analytics and Data



**ISG** Research™

Application integration products are rapidly being transformed by artificial intelligence functionality that enables enterprises to automate time-consuming and repeatable application integration tasks. Based on a corpus of existing application integration projects and best practices, GenAI can be used to automate the development of integration processes based on natural language prompts, provide automated suggestions to improve integration process development, and automatically generate documentation of integration processes. Other potential use-cases for AI-driven integration include the automatic classification and tracking of sensitive data, automated endpoint discovery and configuration, and integration process debugging.

Since many application integration providers have adopted the iPaaS approach to delivering a combination of application integration, API management and data integration, there is significant overlap between application integration and data integration software providers. In fact, all software providers included in the Application Integration Buyers Guide are also included in the Data Integration Buyers Guide. However, not all data integration providers support application integration, and application and data integration continue to have distinct functional requirements.

Data integration products enable enterprises to extract data from applications, databases and other sources and combine it for analysis in a data warehouse or data lakehouse with the intention of generating business insights. In comparison, application integration facilitates direct integration between enterprise applications at a functional level in order to fulfil an operational business objective.



To provide an example, the fulfilment of orders at an enterprise operating a just-in-time manufacturing approach will rely on business processes that require real-time integration between resource planning, supply chain and customer relationship applications. This is the realm of application integration. The same organization might seek to combine historical data

from the resource planning, supply chain and customer relationship applications to track performance over time using analytics software with a view to identify potential opportunities for improving efficiencies. This is the realm of data integration.



**The fulfilment of orders at an enterprise operating a just-in-time manufacturing approach will rely on business processes that require real-time integration between resource planning, supply chain and customer relationship applications.**

Our Application Integration Buyers Guide is designed to provide a holistic view of a software provider's ability to deliver the combination of functionality to provide a complete view of application integration with either a single product or suite of products. As such, the Application Integration Buyers Guide includes the full breadth of application integration functionality. Our assessment also considered whether the functionality in question was available from a software provider in a single offering or as a suite of products or cloud services.

The ISG Buyers Guide™ for Application Integration evaluates products based on key capabilities including application integration process development, application integration process deployment, and application integration process management. To be included in this Buyers Guide, products must include real-time application integration and API management, and were also evaluated for the use of AI to automate and enhance application integration and API management.

This research evaluates the following software providers that offer products that address key elements of application integration as we define it: AWS, Boomi, Celigo, Cleo, Cloud Software Group, Frennds, Google Cloud, Huawei Cloud, IBM, Informatica, Jitterbit, Microsoft, Oracle, Qlik, Salesforce, SAP, SnapLogic, Solace, Tray.ai and Workato.



## Buyers Guide Overview

For over two decades, ISG Research has conducted market research in a spectrum of areas across business applications, tools and technologies. We have designed the Buyers Guide to provide a balanced perspective of software providers and products that is rooted in an understanding of the business requirements in any enterprise. Utilization of our research



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methodology and decades of experience enables our Buyers Guide to be an effective method to assess and select software providers and products. The findings of this research undertaking contribute to our comprehensive approach to rating software providers in a manner that is based on the assessments completed by an enterprise.

The ISG Buyers Guide™ for Application Integration is the distillation of over a year of market and product research efforts. It is an assessment of how well software providers' offerings address enterprises' requirements for application integration software. The index is structured to support a request for information (RFI) that could be used in the request for proposal (RFP) process by incorporating all criteria needed to evaluate, select, utilize and maintain relationships with software providers. An effective product and customer experience with a provider can ensure the best long-term relationship and value achieved from a resource and financial investment.

In this Buyers Guide, ISG Research evaluates the software in seven key categories that are weighted to reflect buyers' needs based on our expertise and research. Five are product-experience related: Adaptability, Capability, Manageability, Reliability, and Usability. In addition, we consider two customer-experience categories: Validation, and Total Cost of Ownership/Return on Investment (TCO/ROI). To assess functionality, one of the components of Capability, we applied the ISG Research Value Index methodology and blueprint, which links the personas and processes for application integration to an enterprise's requirements.

The structure of the research reflects our understanding that the effective evaluation of software providers and products involves far more than just examining product features, potential revenue or customers generated from a provider's marketing and sales efforts. We believe it is important to take a comprehensive, research-based approach, since making the wrong choice of application integration technology can raise the total cost of ownership, lower the return on investment and hamper an enterprise's ability to reach its full performance potential. In addition, this approach can reduce the project's development and deployment



time and eliminate the risk of relying on a short list of software providers that does not represent a best fit for your enterprise.

ISG Research believes that an objective review of software providers and products is a critical business strategy for the adoption and implementation of application integration software and applications. An enterprise's review should include a thorough analysis of both what is possible and what is relevant. We urge enterprises to do a thorough job of evaluating application integration systems and tools and offer this Buyers Guide as both the results of our in-depth analysis of these providers and as an evaluation methodology.



# How To Use This Buyers Guide

## Evaluating Software Providers: The Process

We recommend using the Buyers Guide to assess and evaluate new or existing software providers for your enterprise. The market research can be used as an evaluation framework to establish a formal request for information from providers on products and customer experience and will shorten the cycle time when creating an RFI. The steps listed below provide a process that can facilitate best possible outcomes.

1. Define the business case and goals.  
Define the mission and business case for investment and the expected outcomes from your organizational and technological efforts.
2. Specify the business needs.  
Defining the business requirements helps identify what specific capabilities are required with respect to people, processes, information and technology.
3. Assess the required roles and responsibilities.  
Identify the individuals required for success at every level of the enterprise from executives to frontline workers and determine the needs of each.
4. Outline the project's critical path.  
What needs to be done, in what order and who will do it? This outline should make clear the prior dependencies at each step of the project plan.
5. Ascertain the technology approach.  
Determine the business and technology approach that most closely aligns to your enterprise's requirements.
6. Establish software provider evaluation criteria.  
Utilize the product experience: Adaptability, Capability, Manageability, Reliability and Usability, and the customer experience in TCO/ROI and Validation.
7. Evaluate and select the technology properly.  
Weight the categories in the technology evaluation criteria to reflect your enterprise's priorities to determine the short list of software providers and products.
8. Establish the business initiative team to start the project.  
Identify who will lead the project and the members of the team needed to plan and execute it with timelines, priorities and resources.



# The Findings

All of the products we evaluated are feature-rich, but not all the capabilities offered by a software provider are equally valuable to types of workers or support everything needed to manage products on a continuous basis. Moreover, the existence of too many capabilities may be a negative factor for an enterprise if it introduces unnecessary complexity. Nonetheless, you may decide that a larger number of features in the product is a plus, especially if some of them match your enterprise’s established practices or support an initiative that is driving the purchase of new software.

Factors beyond features and functions or software provider assessments may become a deciding factor. For example, an enterprise may face budget constraints such that the TCO evaluation can tip the balance to one provider or another. This is where the Value Index methodology and the appropriate category weighting can be applied to determine the best fit of software providers and products to your specific needs.

## Overall Scoring of Software Providers Across Categories

The research finds Oracle atop the list, followed by SAP and Informatica. Companies that place in the top three of a category earn the designation of Leader. Oracle has done so in five categories; Informatica and Microsoft in four; AWS and SAP in two; Boomi, Google Cloud, Qlik, Salesforce and SnapLogic in one category.

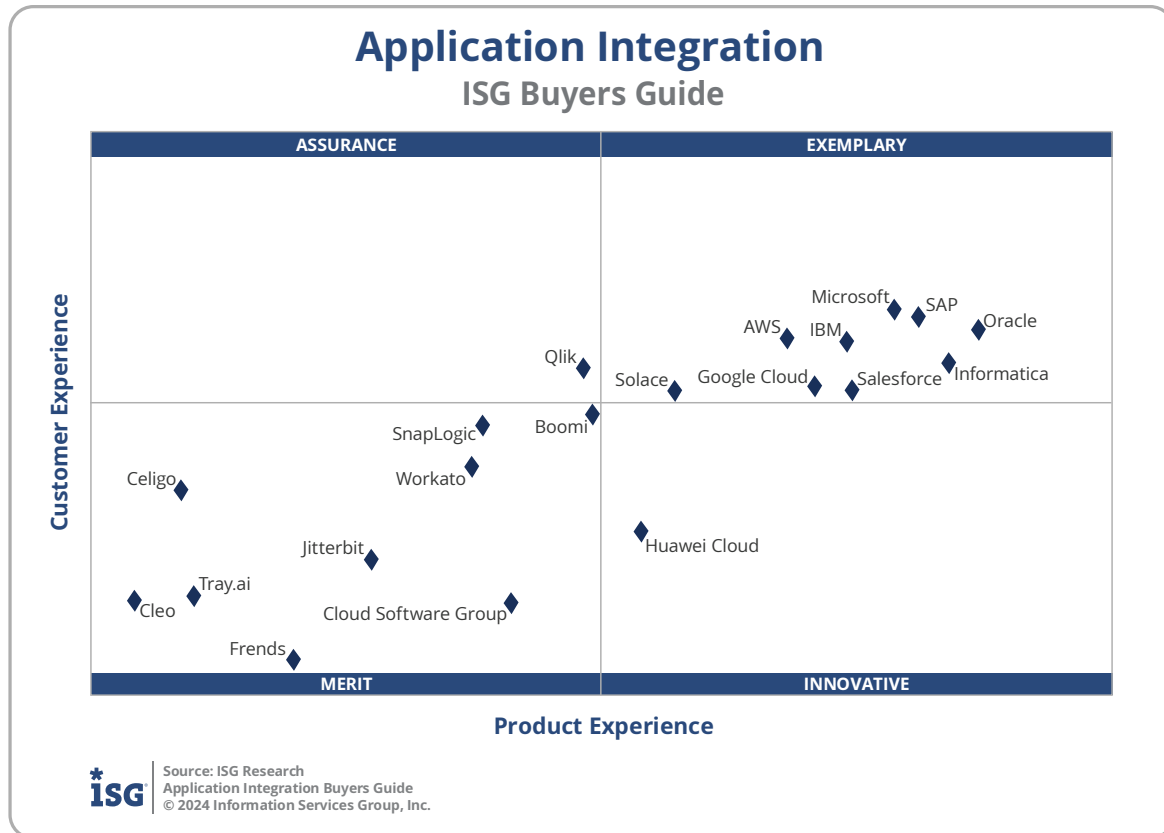
The overall representation of the research below places the rating of the Product Experience and Customer Experience on the x and y axes, respectively, to provide a visual representation and classification of the software providers. Those providers whose Product Experience have a higher weighted performance to the axis in aggregate of the five product categories place farther to the right, while the performance and weighting for the two Customer Experience categories determines placement on the vertical axis. In short, software providers that place closer to the upper-right on this chart performed better than those closer to the lower-left.

The research places software providers into one of four overall categories: Assurance, Exemplary, Merit or Innovative. This representation classifies providers’ overall weighted performance.

Application Integration Overall			
Providers	Grade	Performance	
Oracle	A-	Leader	81.7%
SAP	B++	Leader	80.9%
Informatica	B++	Leader	80.0%
Microsoft	B++		79.7%
Salesforce	B++		77.8%
IBM	B++		77.6%
AWS	B+		74.6%
Google Cloud	B+		74.4%
Boomi	B+		74.1%
SnapLogic	B+		71.4%
Solace	B+		71.0%
Huawei Cloud	B		67.6%
Qlik	B		67.3%
Workato	B		66.4%
Cloud Software Group	B-		61.9%
Jitterbit	B-		59.8%
Celigo	B-		57.9%
Friends	B-		56.6%
Tray.ai	B-		56.5%
Cleo	C++		52.4%

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**Exemplary:** The categorization and placement of software providers in Exemplary (upper right) represent those that performed the best in meeting the overall Product and Customer Experience requirements. The providers rated Exemplary are: AWS, Google Cloud, IBM, Informatica, Microsoft, Oracle, Salesforce, SAP and Solace.

**Innovative:** The categorization and placement of software providers in Innovative (lower right) represent those that performed the best in meeting the overall Product Experience requirements but did not achieve the highest levels of requirements in Customer Experience. The provider rated Innovative is Huawei Cloud.

**Assurance:** The categorization and placement of software providers in Assurance (upper left) represent those that achieved the highest levels in the overall Customer Experience requirements but did not achieve the highest levels of Product Experience. The provider rated Assurance is Qlik.

**Merit:** The categorization of software providers in Merit (lower left) represents those that did not exceed the median of performance in Customer or Product Experience or surpass the threshold for the other three categories. The providers rated Merit are: Boomi, Celigo, Cleo, Cloud Software Group, Friends, Jitterbit, SnapLogic, Tray.ai and Workato.



We warn that close provider placement proximity should not be taken to imply that the packages evaluated are functionally identical or equally well suited for use by every enterprise or for a specific process. Although there is a high degree of commonality in how enterprises handle application integration, there are many idiosyncrasies and differences in how they do these functions that can make one software provider's offering a better fit than another's for a particular enterprise's needs.

We advise enterprises to assess and evaluate software providers based on organizational requirements and use this research as a supplement to internal evaluation of a provider and products.



## Product Experience

The process of researching products to address an enterprise's needs should be comprehensive. Our Value Index methodology examines Product Experience and how it aligns with an enterprise's life cycle of onboarding, configuration, operations, usage and maintenance. Too often, software providers are not evaluated for the entirety of the product; instead, they are evaluated on market execution and vision of the future, which are flawed since they do not represent an enterprise's requirements but how the provider operates. As more software providers orient to a complete product experience, evaluations will be more robust.

The research results in Product Experience are ranked at 80%, or four-fifths, of the overall rating using the specific underlying weighted category performance. Importance was placed on the categories as follows: Usability (5%), Capability (25%), Reliability (15%), Adaptability (25%) and Manageability (10%). This weighting impacted the resulting overall ratings in this research. Oracle, Informatica and SAP were designated Product Experience Leaders. While not a Leader, Microsoft was also found to meet a broad range of enterprise product experience requirements.

Many enterprises will only evaluate capabilities for workers in IT or administration, but the research identified the criticality of adaptability (25% weighting) in application integration.

Application Integration Product Experience			
Providers	Grade	Performance	
Oracle	A-	<b>Leader</b>	<b>67.9%</b>
Informatica	A-	<b>Leader</b>	<b>66.9%</b>
SAP	A-	<b>Leader</b>	<b>65.8%</b>
Microsoft	A-		<b>65.0%</b>
Salesforce	B++		<b>63.5%</b>
IBM	B++		<b>63.4%</b>
Google Cloud	B++		<b>62.3%</b>
AWS	B++		<b>61.4%</b>
Solace	B+		<b>57.5%</b>
Huawei Cloud	B+		<b>56.4%</b>
Boomi	B+		<b>55.7%</b>
Qlik	B		<b>54.4%</b>
Cloud Software Group	B		<b>51.9%</b>
SnapLogic	B		<b>50.9%</b>
Workato	B		<b>50.6%</b>
Jitterbit	B-		<b>47.1%</b>
Friends	C++		<b>44.5%</b>
Tray.ai	C++		<b>41.1%</b>
Celigo	C++		<b>40.6%</b>
Cleo	C+		<b>39.0%</b>

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## Customer Experience

The importance of a customer relationship with a software provider is essential to the actual success of the products and technology. The advancement of the Customer Experience and the entire life cycle an enterprise has with its software provider is critical for ensuring satisfaction in working with that provider. Technology providers that have chief customer officers are more likely to have greater investments in the customer relationship and focus more on their success. These leaders also need to take responsibility for ensuring this commitment is made abundantly clear on the website and in the buying process and customer journey.

The research results in Customer Experience are ranked at 20%, or one-fifth, using the specific underlying weighted category performance as it relates to the framework of commitment and value to the software provider-customer relationship. The two evaluation categories are Validation (10%) and TCO/ROI (10%), which are weighted to represent their importance to the overall research.

The software providers that evaluated the highest overall in the aggregated and weighted Customer Experience categories are Microsoft, SAP and Oracle. These category leaders best communicate commitment and dedication to customer needs. While not Leaders, AWS and IBM were also found to meet a broad range of enterprise customer experience requirements.

A few software providers we evaluated lacked sufficient information available through their website and presentations. While many have customer case studies to promote success, others lack depth in articulating their commitment to customer experience and an enterprise’s application integration journey. As the commitment to a software provider is a continuous investment, the importance of supporting customer experience in a holistic evaluation should be included and not underestimated.

**Application Integration**  
Customer Experience

Providers	Grade	Performance
Microsoft	A-	<b>Leader</b> 17.2%
SAP	A-	<b>Leader</b> 17.1%
Oracle	A-	<b>Leader</b> 16.8%
AWS	A-	16.6%
IBM	A-	16.6%
Informatica	B++	16.2%
Qlik	B++	16.1%
Google Cloud	B++	15.7%
Salesforce	B++	15.7%
Solace	B++	15.4%
Boomi	B++	15.2%
SnapLogic	B+	15.0%
Workato	B+	14.2%
Celigo	B	13.7%
Huawei Cloud	B	12.9%
Jitterbit	B-	12.4%
Tray.ai	B-	11.7%
Cleo	B-	11.7%
Cloud Software Group	B-	11.5%
Friends	C++	10.4%

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## Appendix: Software Provider Inclusion

For inclusion in the ISG Buyers Guide™ for Application Integration in 2024, a software provider must be in good standing financially and ethically, have at least \$50 million in annual or projected revenue verified using independent sources, sell products and provide support on at least two continents, and have at least 50 customers. The principal source of the relevant business unit's revenue must be software-related, and there must have been at least one major software release in the last 12 months.

### **Application Integration:**

Application integration is a set of processes and technologies that enable enterprise to combine, transform and process information from multiple internal and external applications to maximize the value of analytic and operational use.

To be included in this Buyers Guide requires functionality that addresses the following sections of the capabilities document:

- Configuration
- Application integration process development
- Application integration process deployment
- Application integration process management
- Real-time application integration
- API management
- AI

The research is designed to be independent of the specifics of software provider packaging and pricing. To represent the real-world environment in which businesses operate, we include providers that offer suites or packages of products that may include relevant individual modules or applications. If a software provider is actively marketing, selling and developing a product for the general market and it is reflected on the provider's website that the product is within the scope of the research, that provider is automatically evaluated for inclusion.

All software providers that offer relevant application integration products and meet the inclusion requirements were invited to participate in the evaluation process at no cost to them.

Software providers that meet our inclusion criteria but did not completely participate in our Buyers Guide were assessed solely on publicly available information. As this could have a significant impact on classification and ratings, we recommend additional scrutiny when evaluating those providers.



## Products Evaluated

Provider	Product Names	Version	Release Month/Year
AWS	Amazon AppFlow, Amazon API Gateway, Amazon EventBridge	May 2024, July 2024, August 2024	May 2024, July 2024, August 2024
Boomi	Boomi Enterprise Platform	August 2024	July 2024
Celigo	Celigo iPaaS	2024.7.1	July 2024
Cleo	Cleo Integration Cloud	July 2024	July 2024
Cloud Software Group	TIBCO Cloud Integration	3.10.3.0	June 2024
Frends	Frends	5.73	June 2024
Google Cloud	Google Cloud Application Integration, Google Cloud Apigee	May 2024, July 2024	May, July
Huawei Cloud	Huawei Cloud ROMA Connect	June 2024	June 2024
IBM	IBM Cloud Pak for Integration	16.1.0	July 2024
Informatica	Informatica Intelligent Data Management Cloud - Integration Cloud	August 2024	August 2024
Jitterbit	Harmony iPaaS	11.28	June 2024
Microsoft	Azure Logic Apps, Azure API Management, Azure Event Grid	July 2024	July 2024
Oracle	Oracle Integration, Oracle Cloud Infrastructure (OCI) API Gateway	June 2024, December 2023	June 2024, December 2023
Qlik	Talend Data Fabric	R2024-07	July 2024
Salesforce	MuleSoft Anypoint Platform	June 2024	June 2024
SAP	SAP Integration Suite	August 2024	August 2024



SnapLogic	SnapLogic Platform	July 2024	July 2024
Solace	PubSub+ Platform	July 2024	July 2024
Tray.ai	Tray.ai Universal Automation Cloud	July 2024	July 2024
Workato	Workato	July 2024	July 2024



### Providers of Promise

We did not include software providers that, as a result of our research and analysis, did not satisfy the criteria for inclusion in this Buyers Guide. These are listed below as “Providers of Promise.”

<b>Provider</b>	<b>Product</b>	<b>Annual Revenue &gt;\$50M</b>	<b>Operates in 2 Countries</b>	<b>At Least 50 Customers</b>
Adeptia	Adeptia Connect	No	Yes	Yes
Astera Software	Astera	No	Yes	Yes
Safe Software	FME Platform	No	Yes	Yes





## About ISG Software Research

ISG Software Research provides authoritative market research and coverage on the business and IT aspects of the software industry. We distribute research and insights daily through our [community](#), and we provide a portfolio of consulting, advisory, research and education services for enterprises, software and service providers, and investment firms. Our premier service, ISG Software Research On-Demand, provides structured education and advisory support with subject-matter expertise and experience in the software industry. ISG Research Buyers Guides support the RFI/RFP process and help enterprises assess, evaluate and select software providers through tailored [Assessment Services](#) and our Value Index methodology. Visit [www.ventanaresearch.com](http://www.ventanaresearch.com) to sign up for free community membership with access to our research and insights.

## About ISG Research

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